

# Abstract

**Krajčová V.: Explant cultures of Higher plants 30. Diplom Paper, Charles University in Prague, Faculty of Pharmacy in Hradec Králové, Department of Pharmaceutical Botany and Ecology, 2007, p. 62**

This work aimed at biotransformation of exogenous precursor of arbutin – hydroquinone with in vitro cultures of *Datura meteloides* D. C. ex Dunal. Into the medium was added precursor of arbutin hydroquinone in the concentrations 100 mg/ l and 200 mg/ l. The cull was operated after 24, 48, 72, 96, 120, 144, 168 hours (1 week).

The cultivations of calluses prosecuted in the light, on the liquid medium MS [10] with addition 2, 4-diclorfenoxiacetic acid (1ml/ l) on the filter – paper bridge.

Positiove resultes was obtained (TLC and HPLC analysis) in produktion of arbutin in all bridging cultures in both concetrationes (100 mg/ l, 200 mg/ l). The concentration of arbutin increased with the period of cultivation by all concetrationes of hydroquinone. The biggest value arbutin by concentration of hydroquinone 100 mg/ l was obtained by period of cultivation 168 hours, it was 0,41 %. By concentration of precursor 200 mg/ l, maximum value of arbutin 1,09 % was obtained after the biggest period of cultivation 168 hours.